

REMARKS

Applicants thank the Examiner for the attention accorded the present Application in the December 15, 2005 Final Office Action, in which claims 1-12, 15, 17-30 and 33-35 were pending.

Claims 1-12, 15, 17-30 and 33-35 are still currently pending in this Application. Based on the arguments below, Applicants respectfully submit that the rejections to these claims have been overcome. Reconsideration of this Application, and allowance of claims 1-12, 15, 17-30 and 33-35, is respectfully requested in view of the following remarks.

Joint Inventors

The subject matter of all claims in this application were commonly owned at the time any inventions covered herein were made.

Improper Final Rejection

“[S]econd or any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p).”¹

The Examiner introduced a new ground of rejection in this Office Action based on Giamei, and claimed that Applicants' amendment necessitated this new ground of rejection. Applicants made no amendments to the claims that would necessitate this new ground of rejection. The only substantive claims amendments made were to incorporate language from dependent claim 16 into independent claims 1, 29 and 30. Furthermore, Applicants had already cited Giamei in the IDS that was filed together with this application. As such, Applicants submit that this action was improperly made final, and therefore request that the finality of this action be withdrawn.

¹ See MPEP § 706.07(a).

35 U.S.C. § 103(a) rejections

Claims 1-12, 15, 17-30 and 33-35 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Monte I (US 5,062,468), Monte II (US 5,062,469) or Jeyarajan, and further in view of Burd. Claims 1-12, 15, 17-30 and 33-35 also stand rejected under 35 U.S.C. §103(a) as being unpatentable over Burd, and further in view of Monte I, Monte II or Jeyarajan. Claims 1-12, 15, 17-30 and 33-35 also stand rejected under 35 U.S.C. §103(a) as being unpatentable over Giamei, and further in view of Monte I, Monte II, Jeyarajan or Burd. Applicants respectfully disagree with the Examiner's conclusion and submit that the present invention is not obvious in view of, nor is it even suggested by, Monte I, Monte II, Jeyarajan, Burd and/or Giamei.

As presently claimed in Applicant's independent claims, Applicant's invention comprises at least these three elements: (a) a seed crystal, (b) a grain selector, and (c) a grain selector support, "wherein the grain selector comprises a non-linear tubular structure comprising at least one of: a helix, a three-dimensional bend, a staircase, and a zigzag."²

In contrast, none of Monte I, Monte II or Jeyarajan disclose utilizing a seed crystal, a grain selector and a grain selector support, *wherein the grain selector comprises a non-linear tubular structure comprising at least one of: a helix, a three-dimensional bend, a staircase, and a zigzag*. Each of Monte I, Monte II and Jeyarajan repeatedly disclose using a grain selector having only a simple *single bend*.³ While various embodiments of grain selectors are disclosed in each of Monte I, Monte II and Jeyarajan, all the disclosed embodiments only comprise a simple *single bend*. No other configurations are disclosed or suggested anywhere in any of Monte I, Monte II or Jeyarajan. Additionally, each of Monte I, Monte II and Jeyarajan actually *teach away* from the more complex grain selector configurations (i.e., helix, three-dimensional bends, staircases, zigzags) of the present invention by repeatedly noting how much less their

² Applicants' spec., independent claims 1, 29 and 30.

³ See, e.g., Monte I, col. 6, lines 34-42 and Figs. 2, 4 and 5; Monte II, col. 5, lines 60-68 and Figs. 2, 4, 5 and 9; and Jeyarajan, col. 4, lines 60-68 and Figs. 2 and 4.

simpler configurations cost, how much less complicated the tooling is for their simpler configurations, and how much scrap is produced with helical grain selectors.⁴

Also in contrast, Burd does not disclose utilizing *a seed crystal*, a grain selector and a grain selector support, wherein the grain selector comprises a non-linear tubular structure comprising at least one of: a helix, a three-dimensional bend, a staircase, and a zigzag. Burd never even mentions utilizing a seed crystal, and Burd only mentions utilizing a complex shaped (i.e., helical) grain selector.

Also in contrast, Giamei does not disclose utilizing a seed crystal, a grain selector and *a grain selector support*, wherein the grain selector comprises a non-linear tubular structure comprising at least one of: a helix, a three-dimensional bend, a staircase, and a zigzag. Giamei never even mentions utilizing a grain selector support, and Giamei only mentions utilizing a complex shaped (i.e., helical or zig zag) grain selector.

Therefore, none of Monte I, Monte II, Jeyarajan, Burd or Giamei disclose, nor even suggest, utilizing a seed crystal, a grain selector and a grain selector support, wherein the grain selector comprises a non-linear tubular structure comprising at least one of: a helix, a three-dimensional bend, a staircase, and a zigzag, as recited in independent claims 1, 29 and 30 of Applicants' invention.

References cannot be combined when a reference teaches away from their combination.⁵ As noted above, Monte I, Monte II and Jeyarajan actually teach away from complex grain selector configurations. Burd and Giamei only utilize complex grain selector configurations. Therefore, Monte I, Monte II and Jeyarajan actually teach away from Burd and Giamei. As such, one skilled in the art would not even look at Burd or Giamei to see if the Burd or Giamei inventions could be combined or modified in any way with Monte I, Monte II or Jeyarajan. As such, these rejections are improper and should be withdrawn.

The Examiner is reminded that "[w]hen applying 35 U.S.C. 103, the following tenets of patent law must be adhered to: ... (B) The references must be considered as a

⁴ See, e.g., Jeyarajan, col. 4, lines 42-45; Monte I, col. 1, lines 20-35; and Monte II, col. 1, lines 17-34.

⁵ See MPEP § 2145(X)(D)(2).

whole and *must suggest the desirability ... of making the combination*; [and] (C) The references must be viewed without the benefit of *impermissible hindsight vision* afforded by the claimed invention.”⁶ “The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.”⁷ “The Federal Circuit has produced a number of decisions overturning obviousness rejections due to a lack of suggestion in the prior art of the desirability of combining references.”⁸ There is no suggestion or motivation in any of the cited references to modify any of the inventions as suggested by the Examiner. Furthermore, Applicants submit that the Examiner is relying upon impermissible hindsight vision afforded by Applicants’ claimed invention to obtain his suggested combination of the cited references. As such, these rejections are improper and should be withdrawn.

Finally, if Applicants’ invention was as obvious as the Examiner claims it is, one of the cited references surely could have suggested or disclosed Applicants’ invention somewhere therein. The fact that none of the cited references combined all the elements as Applicants did is proof in and of itself that Applicants’ invention is non-obvious. As such, these rejections are improper and should be withdrawn.

Based on the above arguments, Applicants respectfully submit that independent claims 1, 29 and 30 of the present invention are patentably distinguished from Monte I, Monte II, Jeyarajan, Burd and/or Giamei. As claims 2-12, 15 and 17-28 depend from claim 1; and claims 33-35 depend from claim 30; the discussion above applies to these claims as well. Further, these claims each include separate novel features. Thus, Applicants respectfully request that the Examiner withdraw these rejections and allow pending claims 1-12, 15, 17-30 and 33-35.

⁶ See MPEP § 2141 (II) and *Hodosh v. Block Drug Co., Inc.*, 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986).

⁷ See MPEP § 2143.01 and *In re Mills*, 916 F.2d 680, 680-82, 16 USPQ2d 1430, 1430-32 (Fed. Cir. 1990).

⁸ See MPEP § 2145(X)(C).

CONCLUSION


Applicants respectfully submit that the arguments presented above successfully traverse the rejections given by the Examiner in the Office Action. For the above reasons, it is respectfully submitted that the pending claims patentably distinguish the present invention from the cited references. Allowance of pending claims 1-12, 15, 17-30 and 33-35 is therefore respectfully requested.

As this response is being timely filed within four (4) months of the mailing date of the Final Office Action dated 12/15/05, Applicants believe that the only fees due are **\$120** for a one (1) month extension of time. The Commissioner is authorized to charge this amount and any additional fees that may be due, or credit any overpayment, to **Deposit Account Number 21-0279, Order No. EH-11132.**

Should the Examiner have any questions, or determine that any further action is necessary to place this Application into better form for allowance, the Examiner is encouraged to telephone the undersigned representative at the number listed below.

Respectfully submitted,

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